



# MS4 Trading Opportunities

# Phase II GP Trading Provisions

## Part I.C.2.b.(4)

b. As part of development of the Chesapeake Bay TMDL Action Plan, the operator may consider:

- (1) Implementation of BMPs on unregulated lands provided any necessary baseline reduction is not included toward meeting the required reduction in this permit;
- (2) Utilization of stream restoration projects, provided that the credit applied to the required POC load reduction is prorated based on the ratio of regulated urban acres to total drainage acres upstream of the restored area;
- (3) Establishment of a memorandum of understanding (MOU) with other MS4 operators that discharge to the same or adjacent eight digit hydrologic unit within the same basin to implement BMPs collectively. The MOU shall include a mechanism for dividing the POC reductions created by BMP implementation between the cooperative MS4s;
- (4) Utilization of any pollutant trading or offset program in accordance with §§ 62.1-44.19:20 through 62.1-44.19:23 of the Code of Virginia, governing trading and offsetting;

## § 62.1-44.19:21.

### Nutrient credit use by regulated entities.

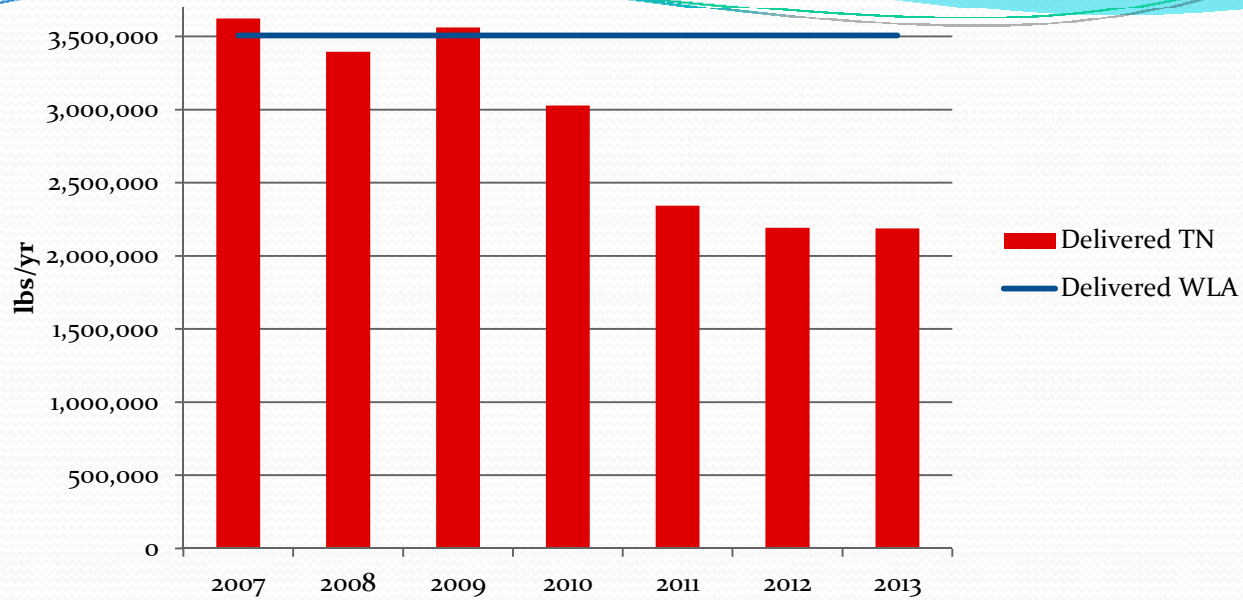
- A. An MS4 permittee **may acquire, use, and transfer nutrient credits for purposes of compliance with any waste load allocations** established as effluent limitations in an MS4 permit issued pursuant to § 62.1-44.15:25. Such method of compliance may be approved by the Department following review of a compliance plan submitted by the permittee that includes the use of nutrient credits. The permittee may use such credits for compliance purposes only if (i) the credits, whether annual, term, or perpetual, are generated and applied for purposes of compliance for the same calendar year; (ii) the credits are acquired no later than a date following the calendar year in which the credits are applied as specified by the Department consistent with the permittee's Virginia Stormwater Management Program (VSMP) permit annual report deadline under such permit; (iii) the credits are generated in the same locality or tributary, except that permittees in the Eastern Coastal Basin may also acquire credits from the Potomac and Rappahannock tributaries; and (iv) the credits **either are point source nitrogen or point source phosphorus credits generated by point sources covered by the general permit** issued pursuant to § 62.1-44.19:14, or are **certified pursuant to § 62.1-44.19:20**. An MS4 permittee may enter into an agreement with one or more other MS4 permittees within the same locality or within the same or adjacent eight-digit hydrologic unit code to collectively meet the sum of any waste load allocations in their permits. Such permittees shall submit to the Department for approval a compliance plan to achieve their aggregate permit waste load allocations.



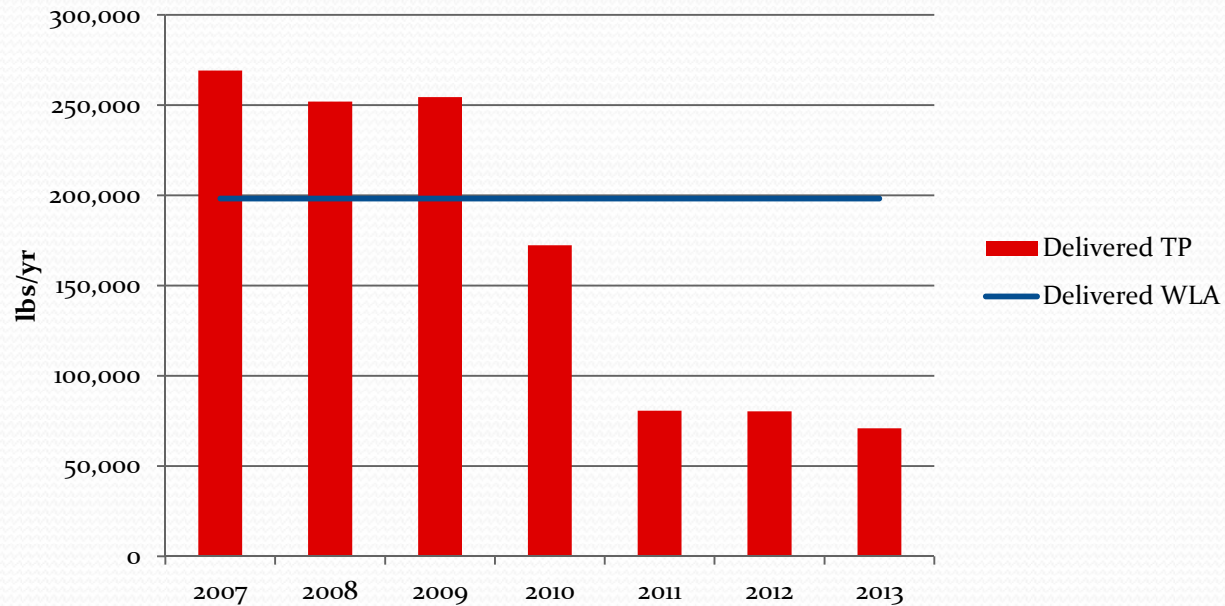


# Availability of Point Source Credits

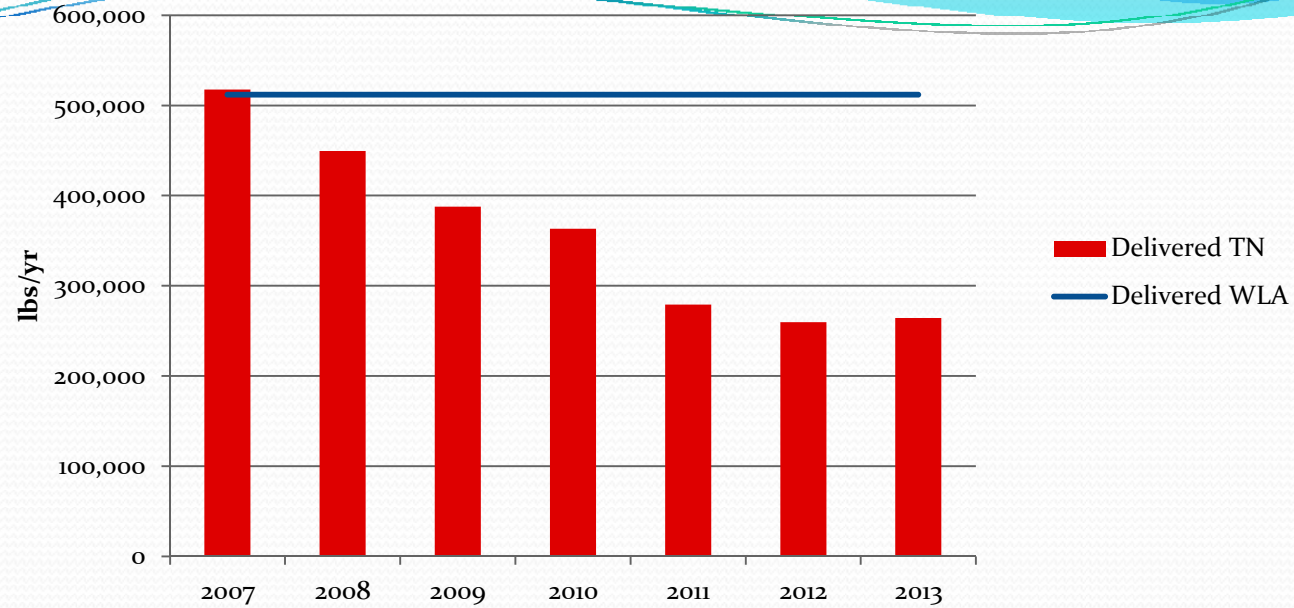
## Potomac Total Nitrogen



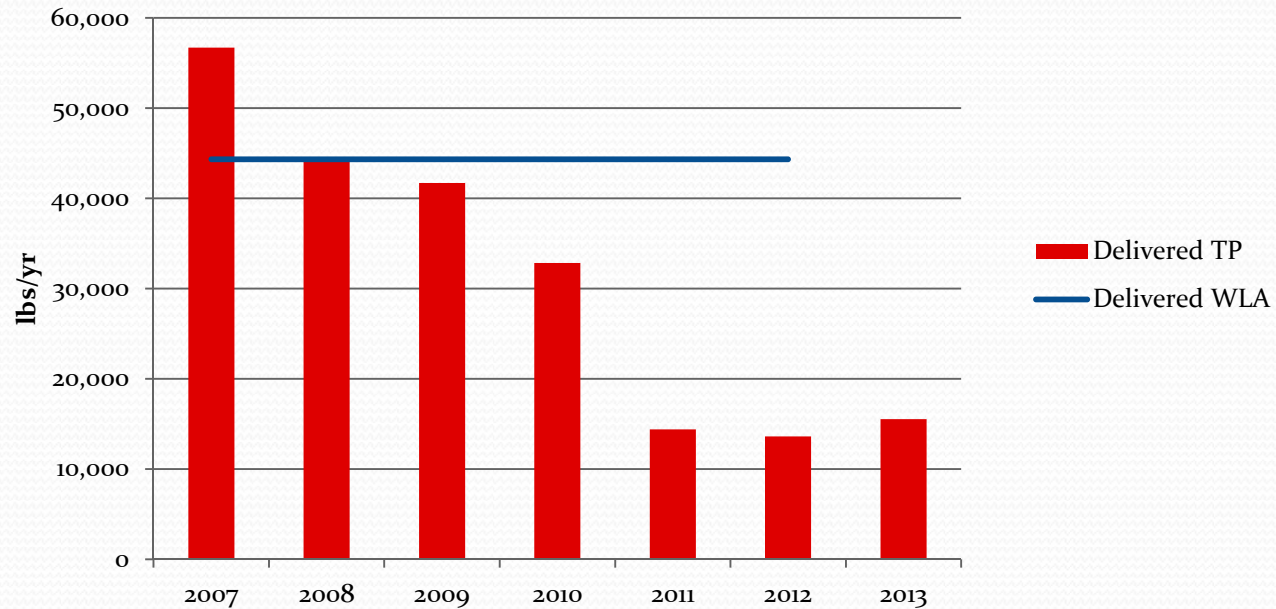
## Potomac Total Phosphorus



# Rappahannock Total Nitrogen

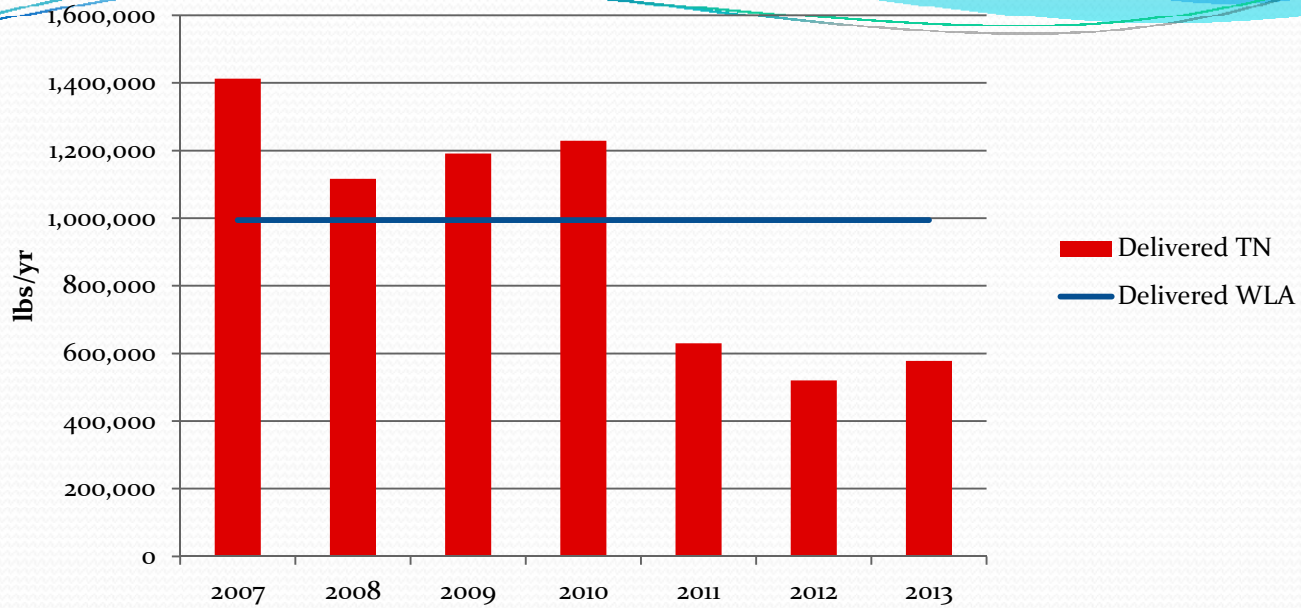


# Rappahannock Total Phosphorus

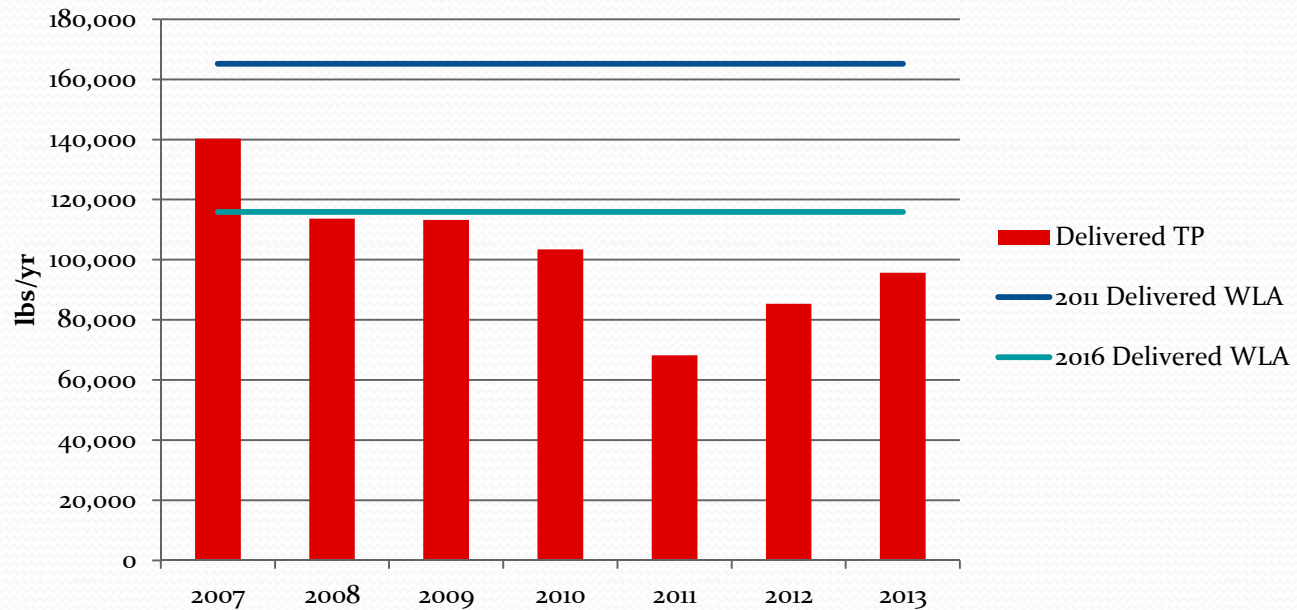




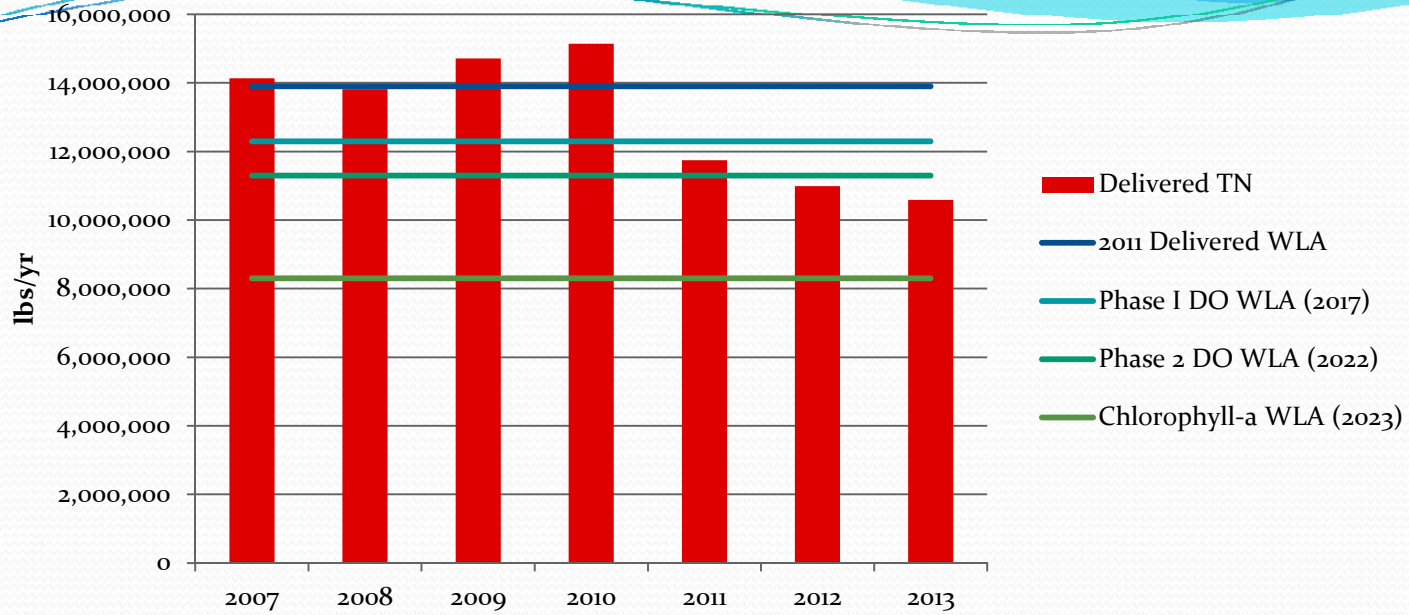
## York Total Nitrogen



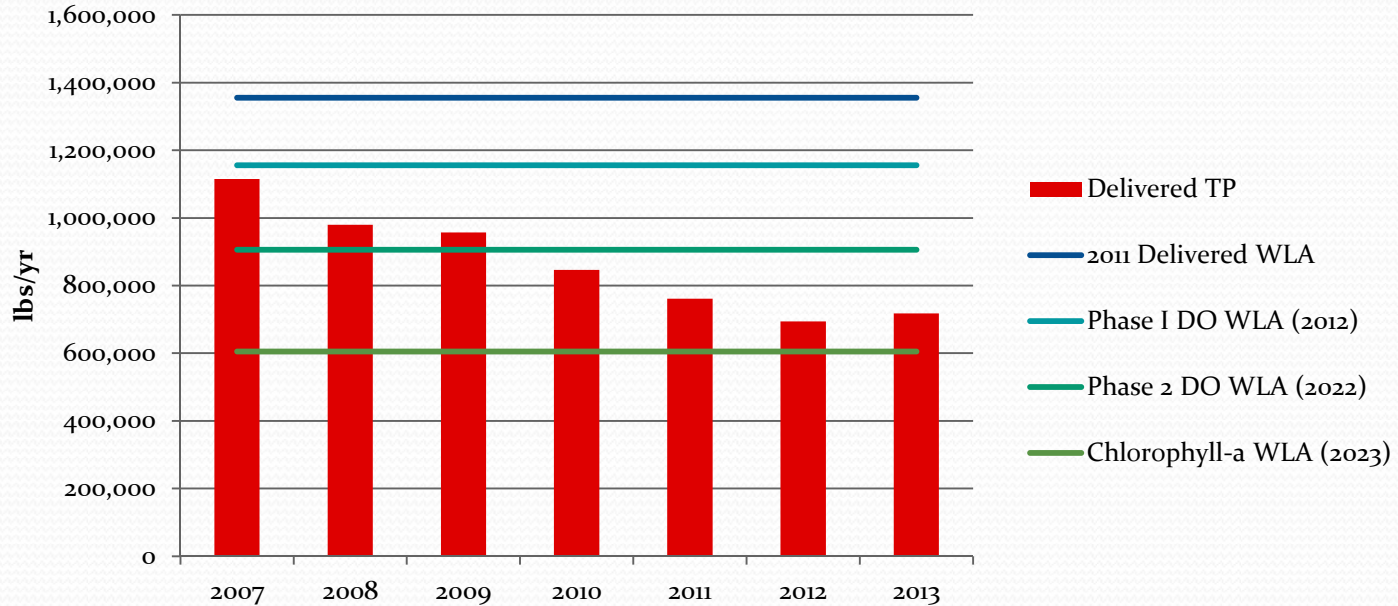
## York Total Phosphorus



# James Total Nitrogen



# James Total Phosphorus



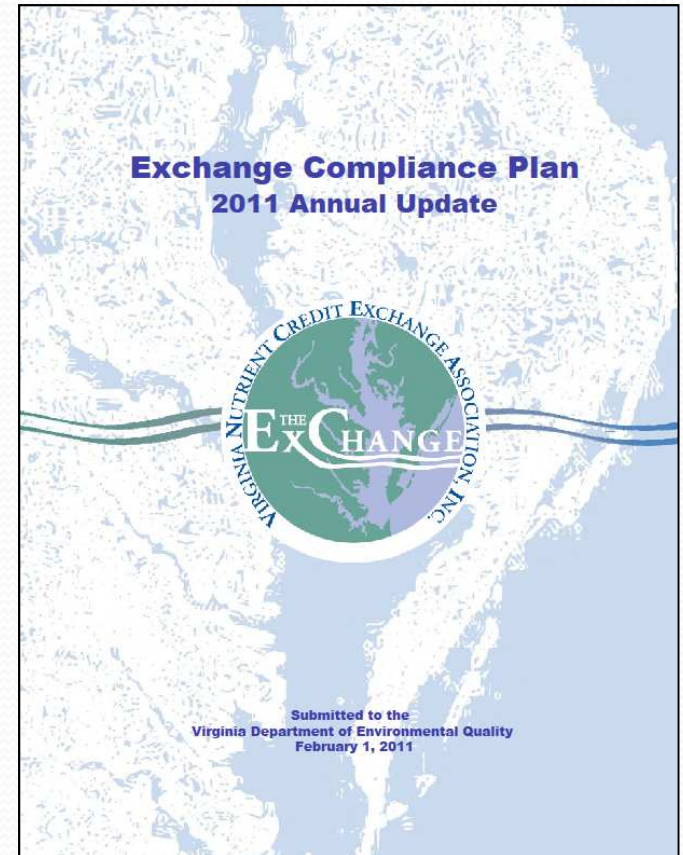


# Nutrient Credit Exchange Association

VA Nutrient Credit Exchange Association

<http://www.theexchangeassociation.org>

- Voluntary membership in non-stock corporation formed by General Assembly to facilitate the trading Program
- 105 facility members





# Availability of Nonpoint Source Credits



# Nonpoint Trading Guidance



## **Trading Nutrient Reductions from Nonpoint Source Best Management Practices in the Chesapeake Bay Watershed: Guidance for Agricultural Landowners and Your Potential Trading Partners**





### James Basin BMPs: Single BMP

BMP	West of I-95		East of I-95	
	TN	TP	TN	TP
Early Planted Cover Crops	0.54	0	0.91	0
15% Nitrogen Reduction on Corn	1.75	0	3.70	0
Continuous No-Till	1.05	0.49	1.13	0.19

### James Basin BMPs: Combination BMPs

BMP	West of I-95		East of I-95	
	TN	TP	TN	TP
Early Planted Cover Crops & 15% Nitrogen Reduction on Corn	2.14	NA	4.29	0
Early Cover Crop & Continuous No-Till	1.38	0.49	1.66	0.19
15% Nitrogen Reduction on Corn & Continuous No-Till	2.53	0.49	4.46	0.19
Early Cover Crop & 15% Nitrogen Reduction on Corn & Continuous No-Till	2.86	0.49	4.99	0.19

### James Basin Land Conversion

BMP	West of I-95		East of I-95	
	TN	TP	TN	TP
Cropland to Forest	5.48	1.22	9.34	0.93
Cropland to Hay	4.05	0.60	3.45	0.36
Cropland to Mixed Open (fallow)	3.44	0.33	3.08	0
Hay to Forest	3.28	0.98	13.35	2.16
Hay to Mixed Open (fallow)	1.24	0.09	7.09	0.47
Pasture to Forest	0.67	0.50	13.33	1.74

# Nonpoint Source Nutrient Banks with Credits Released

Project Name	Urban/ Ag BMPs	Broker	Contact	Phone No.	County	HUC Code	Certification No.	Credits Released		Credits Used/Retired		Credits Available	
								Phosphorus	Nitrogen	Phosphorus	Nitrogen	Phosphorus	Nitrogen
Wildwood Farm	Ag land conversion	Chesapeake Bay Nutrient Land Trust	Brent Fults/Scott Reed	(804) 222-5114	Appomattox	02080203	James-001	101	376	22.23	82.77	78.77	293.23
Malvern Landbank	Ag land conversion	Stadia Development	Ron Green	(804) 908-4171	Powhatan	02080205	James-002	62.04	278.66	24.46	109.83	37.58	168.83
Cranston Millpond	Urban BMP	Chesapeake Bay Nutrient Land Trust	Brent Fults/Scott Reed	(804) 222-5115	James City	02080206	James-003	752	1655	25.17	55.41	726.83	1599.59
Swiss Dixie	Ag land conversion	Stadia Development	Ron Green	(804) 908-4171	Amelia	02080207	James-004	228.05	763.26	0.00	0.00	228.05	763.26
Eastern Henrico Nutrient Bank	Ag land conversion	Midview Management Corp.	Spud Mistr	(804) 387-7783	Henrico	02080206	James-005	31.08	115.81	0.00	0.00	31.08	115.81
Leinster	Ag land conversion	Stadia Development	Ron Green	(804) 908-4171	Nottoway	02080207	James-007	23.06	103.57	0.00	0.00	23.06	103.57
Pamunkey Farms	Ag land conversion	Falling Springs, LLC	Aaron Revere	(804) 330-8091	New Kent	02080106	York-001	41.93	436.8	3.69	38.46	38.24	398.34
Rappahannock Nutrient Bank	Ag land conversion	Perdue-Barboursville, LLC	David Perdue	(804) 432-6805	Orange	02080103	Rappahannock-001	81.80	260.93	0.00	0.00	81.8	260.93
Buena Vista	Ag land conversion	Falling Springs	Aaron Revere	(804) 330-8091	King George	02070011	Potomac-001	34.34	527.54	0.00	0.00	34.34	527.54
Swinging Bridge	Ag land conversion	P. J. Wright	P. J. Wright	(540) 430-3070	Augusta	02070005	Potomac-002	8.61	54.25	0.00	0.00	8.61	54.25
Elk Run	Ag land conversion	Chesapeake Bay Nutrient Land Trust	Brent Fults/Scott Reed	(804) 222-5114	Fauquier	2070010	Potomac-003	15.65	210.78	0.00	0.00	15.65	210.78
Totals								1,380	4,783	76	286	1,304	4,496